

Route 116 Stage Gulch Road Curve Improvement and Realignment Project

SONOMA COUNTY, CALIFORNIA
DISTRICT 4 – SON – 116, KP 67.3/71.9 (PM 41.8/44.7)
Expenditure Authorization 283800

Initial Study with Proposed Mitigated Negative Declaration



November 2004



Prepared by the State of California
Department of Transportation



GENERAL INFORMATION ABOUT THIS DOCUMENT

What's in this document:

The California Department of Transportation (Department) has prepared this Initial Study with proposed Mitigated Negative Declaration, which examines the potential environmental impacts of the alternatives being considered for the proposed project located in Sonoma County, California. The document describes why the project is being proposed, alternatives for the project, the existing environment that could be affected by the project, the potential impacts from each of the alternatives, and the proposed avoidance, minimization and/or mitigation measures.

What you should do:

- Please read this Initial Study. Additional copies of this document as well as the technical studies are available for review at the district office, 111 Grand Avenue, Oakland, California 94623, as well as two branches of the Sonoma County Public Library:

Petaluma Branch	Sonoma Branch
100 Fairgrounds Drive	755 West Napa
Petaluma	Sonoma

- Attend public informational meeting on November 17, 2004
- We welcome your comments. If you have any comments regarding the proposed project, please attend the meeting on November 17, 2004 and/or send your written comments to the Department by the deadline of December 15, 2004.
- Submit comments via postal mail to:

Valerie Heusinkveld, Environmental Branch Chief
Attention: Seana L. S. Gause
Dept. of Transportation, Office of Environmental Analysis
111 Grand Avenue
Oakland, CA 94623

- Submit comments via email to seana_gause@dot.ca.gov.
- Submit comments by the deadline: December 15, 2004.

What happens next:

After comments are received from the public and reviewing agencies, the Department may: (1) give environmental approval to the proposed project, (2) undertake additional environmental studies, or (3) abandon the project. If the project is given environmental approval and funding is appropriated, the Department could design and construct all or part of the project.

For individuals with sensory disabilities, this document can be made available in Braille, large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Department of Transportation, Attn: Seana L.S. Gause, Office of Environmental Analysis, 111 Grand Avenue, Oakland, CA 94623; (510) 286-6336 Voice, or use the California Relay Service TTY number, (800) 735-2929.

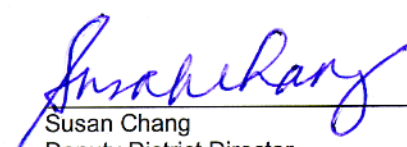
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(PM 41.8/44.7)
EA: 283800

**Route 116 Stage Gulch Road Curve Improvement and Realignment Project, KP 67.3 (PM 41.8) to KP
71.9 (PM 44.7), Sonoma County, California**

INITIAL STUDY with Proposed Mitigated Negative Declaration

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation



Susan Chang
Deputy District Director
Office of Environmental Analysis and Environmental Engineering
California Department of Transportation - District 04

10/26/2004

Date of Approval

MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Department) proposes to widen the shoulders of State Route 116 to standard widths between Adobe Road and Arnold Drive, and improve some nonstandard curves. The radius of horizontal curves will be increased at least to the standard for this type of facility (two lane highway). Improving the roadway just west of Transfer Station Road (aka County Dump Road) without impinging on an environmentally-sensitive area will necessitate realigning the highway for about 1.2 km (0.75 m) in that area. The existing roadway near Transfer Station Road will be realigned to avoid an environmentally sensitive area. Several retaining walls are proposed to minimize the need to acquire additional state right-of-way.

Determination

This proposed Mitigated Negative Declaration (MND) is included to give notice to interested agencies and the public that it is the Department's intent to adopt an MND for this project. This does not mean that the Department's decision regarding the project is final. This MND is subject to modification based on comments received by interested agencies and the public.

The Department has prepared an Initial Study for this project, and pending public review, expects to determine from this study that the proposed project would not have a significant impact on the environment for the following reasons:

The proposed project would have no effect on air, noise, hazardous materials, growth, public utilities, or cultural resources.

The proposed project would have no significantly adverse effect on biological resources or on water quality because the following mitigation measures would reduce potential effects to beneath the level of significance:

- Creek restoration to mitigate loss of critical habitat for threatened and endangered species; and
- Implementation of Best Management Practices to protect water quality, including bioswales and retention ponds.

The remaining resources located within the project area are expected to be affected; however, that effect is not expected to be significant.

Susan Chang
Deputy District Director of Environmental Planning
and Engineering
California Department of Transportation - District 4

Date

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CHAPTER 1 PROJECT PURPOSE AND NEED

1 CHAPTER 1 PROJECT PURPOSE AND NEED

1.1 INTRODUCTION

1.1.1 Scope and Project Location

The Department of Transportation (Department) proposes to improve the segment of Route 116 in Sonoma County from Adobe Road in the west to Arnold Drive in the east between the cities of Petaluma and Sonoma. The Federal Highway Administration (FHWA) is the Department's federal partner in proposing this project. Under the direction of the FHWA, this project has been determined to be Categorically Exempt from the National Environmental Policy Act (NEPA). The Department would prepare documentation of this categorical exemption before the proposed project could be approved.

The proposed project is 4.6 kilometers (2.9 miles) in length. Improvements would include shoulder widening and curve alignment modifications, and a realignment of Highway 116 (Stage Gulch Road) for a length of 1.2 kilometers (0.75 miles). Maps 1 and 2 show the vicinity and location of the project.

This project is included in the 2004 State Highway Operations Protection Program (SHOPP). It is also included in the Metropolitan Transportation Commission's (MTC) 2003 Regional Transportation Plan (RTP) and the Sonoma County Transportation Plan, developed by the Sonoma County Transportation Authority (SCTA).

1.1.1.1 Purpose

The goal of the project is to improve the safety of Highway 116 at this location. To attain this goal, the project proposes to reduce accident rates along the corridor by improving curve radii and shoulder widths to current design standards, thus providing room for drivers to correct their course. Additionally, the project proposes to improve operation by installing a left turn pocket and improve a non-standard vertical curve at Transfer Station Road (also known as the County Dump Road).

1.1.1.2 Need

There have been six fatal accidents in the three-year period from October 1, 2000 to September 30, 2003 in the project area. Within the last 10 years, at least 13 people have died in traffic accidents along this stretch of road. Causes of accidents have been attributed to alcohol, excessive speed and detrimental weather conditions. Significant accident patterns include head-on collisions and running off the road. Caltrans has determined that this stretch of road has an accident rate higher than the state average for similar state facilities.

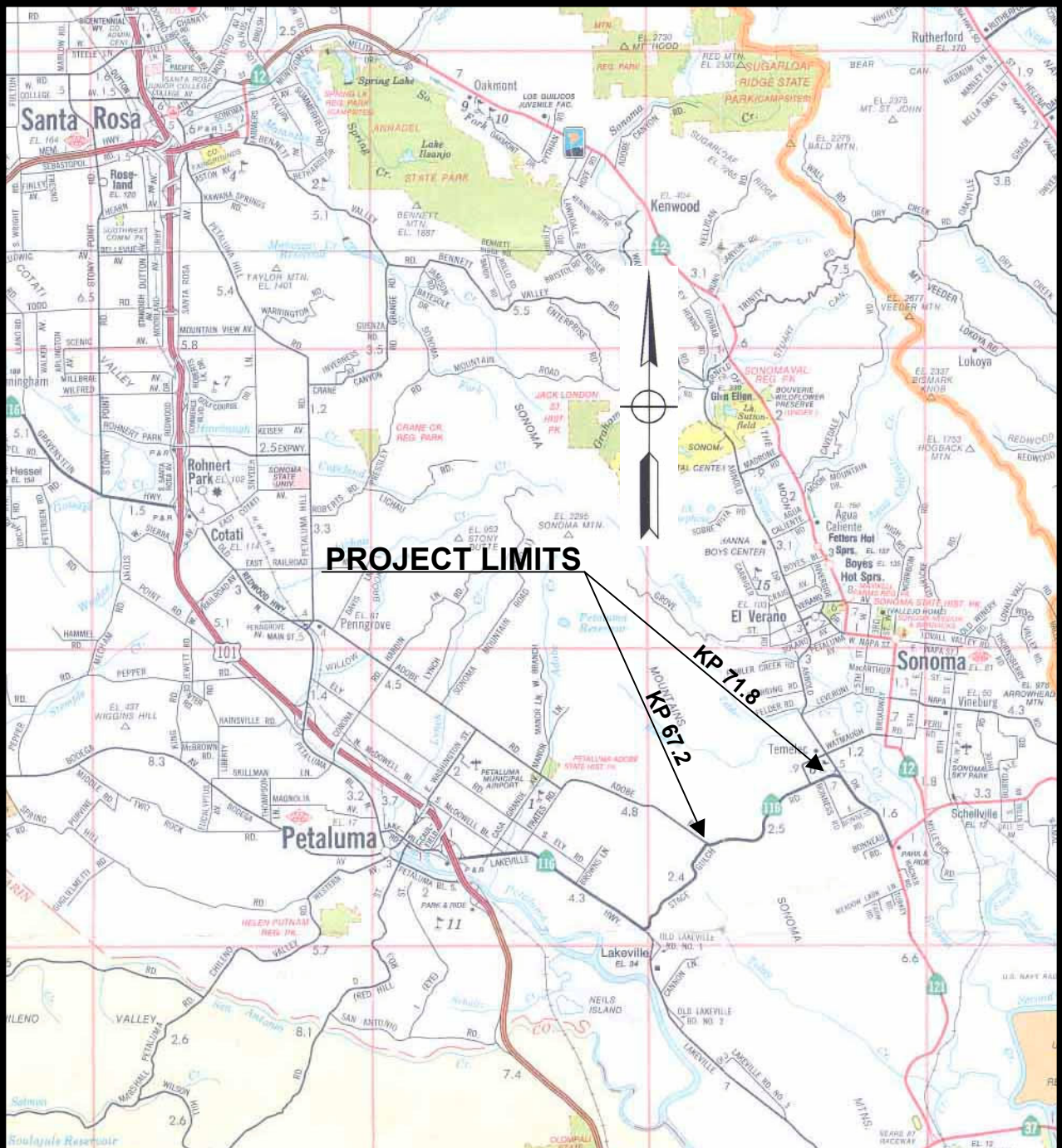


STATE OF CALIFORNIA
BUSINESS AND TRANSPORTATION AGENCY
DEPARTMENT OF TRANSPORTATION - DISTRICT 4

VICINITY MAP
**STAGE GULCH REALIGNMENT
FROM ADOBE ROAD TO 0.1 MILE
WEST OF ARNOLD DRIVE**

BASE MAP REPRODUCED BY COURTESY OF THE CALIFORNIA
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Highway 116, Sonoma County
Kilo Post 67.2/71.8, Post Mile 41.8/44.7
EA (Expenditure Authorization) 283800



STATE OF CALIFORNIA
BUSINESS AND TRANSPORTATION AGENCY
DEPARTMENT OF TRANSPORTATION - DISTRICT 4

LOCATION MAP

STAGE GULCH REALIGNMENT FROM ADOBE ROAD TO 0.1 MILE WEST OF ARNOLD DRIVE

BASE MAP REPRODUCED BY COURTESY OF THE CALIFORNIA
STATE AUTOMOBILE ASSOCIATION, COPYRIGHT OWNER.

Highway 116, Sonoma County
Kilo Post 67.2/71.8, Post Mile 41.8/44.7
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Interim measures have been implemented in order to try to reduce the accident rate. Such measures include reducing the speed limit to 72 KPH (45 MPH) at selected curve locations, installing flashing beacons, curve warning signs with advisory speeds and chevron signs to warn drivers of upcoming curves, and increasing Highway Patrol surveillance to curtail driving infractions. Even with these interim measures, accidents have continued to occur at a higher than average rate.

1.1.1.3 Traffic Safety Context

Stage Gulch Road was originally constructed in its current alignment by the County of Sonoma Public Works and was added to the State Highway System in 1933. Stage Gulch Road is a two-lane rural highway. In the vicinity of the project, the highway has two 3.0- to 3.7- meter (10- to 12- foot) lanes and 0- to 0.6- meter (0- to 2- foot) shoulders through rolling terrain.

Highway 116 provides access between Petaluma – population 54,548 -- and Sonoma – population 9,128 -- and is classified as a primary arterial in the Sonoma County General Plan. The Average Annual Daily Traffic (AADT) is 17,700 vehicles per day, with 19,500 vehicles per day during the peak month, including 1,600 vehicles during the peak hour. Weekday AM peak hour is 7:00 AM to 8:00 AM and PM peak hour is 5:00 PM – 6:00 PM, with the heaviest traffic occurring in the evening. The general speed limit is 55 miles per hour (MPH).

The state highway through the project area, identified as a major east-west transportation corridor by the Sonoma County Regional Transportation Plan, carries truck traffic serving the area's light industry. There are many driveways along the corridor, allowing access for residents and workers. Additionally, a winery tasting room is proposed for a location off of Transfer Station Road and is expected to increase traffic ingress and egress at that location. Traffic demand can be high in the summer time due to the proximity of the project area to event locations such as Infineon Raceway and nearby wineries. Travel demand for the entire corridor, however, is not expected to exceed capacity in the next 30 years.

1.1.1.4 Existing Facilities

From Adobe Road to Arnold Drive, a distance of approximately 4.7 kilometers (2.9 miles), Stage Gulch Road is an undivided, two-lane rural highway on a typical curving horizontal alignment through rolling terrain. The existing pavement width from centerline to edge of pavement is typically 3.8 to 4.0 meters, yielding 3.6- meter (10 foot-) lanes and 0.2- to 0.4- meter (about 1- foot) shoulders. The highway speed limit is 55 MPH within the project limits except where speed reduction is suggested at selected curves.

From the west end of the project limits, Highway 116 traverses a series of winding horizontal curves whose radii range from 150 meters (500 feet) to 300 meters (1,000 feet). Forty-MPH advisory speed warning signs are posted at smallest radius curves in this segment while other curves are posted at forty-five MPH. The overall segment of Highway 116 has fifty-five MPH speed. The existing shoulder ranges from 0.0 to 0.6 meter (0 - 2 feet), which provides no refuge or emergency parking areas.

Land use in the project area is primarily agricultural, consisting mainly of pastureland, on parcels that range from moderate to large. Other area land uses include the Benedetti turkey farm, located about two kilometers (1.2 miles) northwest of the highway; Stage Gulch Aggregate Quarry, which shares an access road with the transfer station, to the immediate northwest; Sonoma County Refuse Transfer Station at the end of the transfer station access road to the northeast; residential development (“Temelec”) off Watmaugh and Arnold Drive in Sonoma to the northeast; and Los Arroyos Golf Course at the eastern end of the project area. The General Plan Land Use Designations for the project location are Land Extensive Agriculture and Diverse Agriculture.

Through the western half of the project, the highway winds through a narrow canyon adjacent to Champlin Creek. The Champlin Creek watershed is the primary source of runoff within the project area. Champlin Creek is a tributary to Rodgers Creek. The confluence of Champlin Creek and Rodgers Creek is located along the southeast edge of the Los Arroyos Golf Course. Rodgers Creek drains into Fowler Creek which is a tributary to Sonoma Creek which empties into San Pablo Bay. One roadside ditch on the western end of the project area drains northwest to Adobe Creek, which is a tributary to the Petaluma River and again, ultimately flows to San Pablo Bay. In the eastern half of the project area, the highway becomes generally straight as the canyon opens out into a valley. Vegetation in the project area consists of pasture land, mixed oak woodland, riparian vegetation along Champlin Creek, and herbaceous annual weeds along the side of the roads and in other disturbed areas.

There are uncontrolled access points along the corridor, allowing ingress and egress for residents in the area.

The Sonoma County General Plan designates Highway 116 eastward from its intersection with Adobe Road as a Primary Arterial road. A Primary Arterial carries large traffic volumes over long distances. The portion of Highway 116 in the project area is a Roadway Improvement Category “A” on the Highway and Transit Plan map of the General Plan Circulation Element. This category means that the intent is to construct safety improvements, curvature reductions, traffic control devices, minor pavement widening, resurfacing, and intersection improvements / turn lanes along the road. The Circulation Element also designates Highway 116 in the project area as an existing intercity transit route for Sonoma County Transit bus.

The Sonoma County General Plan - Open Space Element designates Highway 116 from Petaluma through the project area and past Arnold Drive as a Scenic Highway Corridor. The area adjacent to the south of the project area is included in a Scenic Landscape Unit. Highway 116 through the project area also is designated as a Class III Bikeway in the Open Space Element. The Association of Bay Area Governments (ABAG) identifies the entire length of the project along Stage Gulch Road as part of the San Francisco Bay Trail (classified as “Unimproved Bay Trail (on street) no bike lanes and or sidewalks”). The Sonoma County Transportation Authority Bike Plan 2003 update identifies the length of the project as a Class III bikeway, and proposes it for upgrade to a Class II bikeway. A Class III bikeway is defined in the plan as “providing shared use with pedestrians and motor vehicles” where a Class II bikeway is defined as “providing striped lane for one-way bike travel on a street or highway.”

1.2 PROJECT DESCRIPTION

1.2.1 Proposed Project

This project would widen the roadway shoulder in each direction to the mandatory design standard, which is a width of 2.4 m (8 ft). All nonstandard horizontal curves will be increased to a minimum radius of 260 m, the mandatory design standard for the speed of 50 MPH. The roadway just west of Transfer Station Road would be realigned for about 400 meters as an environmentally protective feature. This would avoid adverse impacts to Champlin Creek and allow for environmental restoration, while still providing the safety improvements to the roadway. Several proposed retaining walls would minimize the need to impact oak and riparian woodlands, but would require additional state right-of-way. The proposed project would not increase the capacity of the roadway. Figures A1 through A6 in the Appendix (page 7-1) show the proposed project plans.

The 2.4-meter (8 foot-) shoulder width is a mandatory design standard for new construction and major reconstruction on conventional highways. Design standards are those considered most essential to providing a safe and efficient transportation system. Shoulder widening has been found to significantly reduce run-off-the-road and head-on collisions. Full-width paved shoulders provide an area adjacent to the travel way for drivers to recover an errant vehicle that might otherwise run off the road. In some cases, a driver may overcorrect in order to bring a vehicle that has drifted from the paved roadway, causing the vehicle to cross into the opposing traffic lane. An additional safety benefit of shoulders is the area that is made available outside the travel way for emergency use of a disabled vehicle.

Areas where there is slipout (eroded) pavement, or pavement exhibiting alligator (longitudinal) cracks greater than 100 mm would be dug out and replaced with new structural sections.

Caltrans' Hydraulics Engineer has evaluated and recommended a course of action where drainage improvements would be necessary within the project limits. Seventeen locations of hydrologic improvements or repairs are numbered and shown on project plans (Figures 1A through 1O).

All metal beam guard rail would be upgraded to current standards. Retaining walls would be necessary in some locations to stabilize slopes above and below the roadway after cutting into the slope to accommodate the widening.

1.3 Alternatives

The development of alternatives for the Stage Gulch Road Curve Improvement and Widening Project began with a re-evaluation of a previous project that had been considered in 1990 but never constructed. The previous rehabilitation project concluded that widening the existing highway through the Stage Gulch Road area would be too costly based on environmental impacts, and was not constructed. In the interim, the accident rate along the corridor increased, and Caltrans subsequently determined that safety improvements along the corridor needed to be implemented. Several criteria were considered in development of the current project alternatives, including cost,

feasibility, means of minimizing environmental impacts, and effectiveness at addressing the purpose and need.

Alternatives considered and rejected from further study are as follows:

1. A roadway rehabilitation project along SR 116 was considered in 1990, but the corridor was found to have many environmental resources that could be impacted. At the time a major realignment of Highway 116 to the northwest was considered in order to avoid the environmentally-sensitive creek and canyon area along the existing corridor. This alternative was rejected because of the high cost of acquiring the right of way necessary to implement the construction and because the amount of time it would take to study and construct a new alignment would be prohibitive. Improving safety of the corridor was not a purpose of the project at the time. The major realignment considered in 1990 did not fit the purpose and need of the currently proposed project, and so was not considered for further evaluation.
2. A project to add shoulders and improve curves while minimizing changes to the existing highway was considered. This alternative differs from the currently-proposed project because it does not include the realignment section. This alternative was found to have significant environmental impacts and was dropped from further consideration.

The following alternatives were selected for further detailed study: 1) the No-Build Alternative and 2) the proposed project. The No-Build alternative would not preclude spot improvements or routine maintenance as necessary. If the No-Build alternative were chosen, a pavement overlay currently being incorporated into the proposed project would be constructed by itself. The Department has already determined that the overlay project would not have a significant impact on the environment.

2 Chapter 2 AFFECTED ENVIRONMENT

As part of the scoping and environmental analysis conducted for the project, the following environmental resources were considered but no potential for adverse impact to these resources was identified. Consequently, there is no further discussion regarding these resources in this document.

- Air Quality
- Noise
- Hazardous Materials
- Growth
- Land Use
- Parks and Recreation

2.1 FARMLANDS

2.1.1 Regulatory Setting

The California Environmental Quality Act requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to deter the early conversion of agricultural and open space lands to other uses.

2.1.2 Affected Environment

The project area is located within a rural, agricultural setting, with large parcels and very low residential density. Many of the parcels adjacent to the project area are farmland. At least 8 adjacent or nearby parcels have Williamson Act contracts with the County of Sonoma.

2.1.3 Project Impacts

Although the project would require the state to acquire “slivers” of certain parcels – that is, narrow strips of land adjacent to the highway – the project would not necessitate the cancellation of any Williamson Act contracts.

2.2 COMMUNITY IMPACTS

2.2.1 Affected Environment

The project area is rural, with scattered residences along the corridor. There are four roadside memorials or “descansos” within the project corridor. In some cases, when a person dies in a traffic accident, a friend or relative will mark the accident location with a handmade commemorative monument. Monuments range from wooden crosses and silk flowers to a small wooden altar with the name of the person that died painted upon it.

2.2.2 Project Impacts

The project is not expected to have impacts on the community. The project would make slight alterations to an existing highway, and is not expected to increase or decrease access to community features. The project area would retain its rural character. No businesses or residences would have to be relocated as part of the current project.

The roadside memorials may need to be removed as a result of construction of the currently proposed project. Federal, State and local legislation does not address treatment of roadside memorials. Caltrans does not have a stated policy on the treatment or continued maintenance of roadside memorials but discourages any objects within the state right of way that could pose a threat to the driving public in the form of obstacles. Removal of these roadside memorials would not constitute an adverse impact.

2.3 UTILITIES / EMERGENCY SERVICES

2.3.1 Utilities

2.3.1.1 Affected Environment

There are overhead utilities, underground gas, electric and telecommunications lines, underground sewer and water supply lines in the project area.

2.3.1.2 Project Impacts

The project might affect the area's utility lines. However, utilities would be relocated without interruption of service.

The proposed project would not require new water supplies to service the project and would not require additional wastewater treatment services or additional storm water services. Alterations might be required to the existing highway drainage system.

2.3.2 Emergency Services

2.3.2.1 Affected Environment

The Sonoma County Sheriff's Department provides protection for life and property in unincorporated Sonoma County, which includes the project area. The closest Sheriff's Office Substation is in Agua Caliente. The California Highway Patrol also has regular surveillance on Stage Gulch Road through the project limits. The Schellville Fire Station provides fire protection for the area.

2.3.2.2 Project Impacts

Some temporary impacts to emergency response time may occur as part of traffic control during construction.

2.3.2.3 Mitigation Measures

Alternative routes would be determined in consultation with the Sheriff, Fire and CHP before construction occurs. Construction could potentially impact emergency response vehicles, but such impacts could be minimized by implementing an Incident Management Plan, which includes the Freeway Service Patrol (FSP) and Construction Zone Enhanced Enforcement Program (COZEED). It has not been determined which incident detection and response system would be used during construction.

2.4 TRAFFIC & TRANSPORTATION

2.4.1 Affected Environment

The Sonoma County General Plan designates SR 116 eastward from its intersection with Adobe Road as a Primary Arterial road. A Primary Arterial carries large traffic volumes over long distances. The portion of SR 116 in the project area consists of one lane in each direction and is a Roadway Improvement Category “A” on the Highway and Transit Plan map of the General Plan Circulation Element. This category means that the intent is to construct safety improvements, curvature reductions, traffic control devices, minor pavement widening, resurfacing, and intersection improvements / turn lanes along the road. The Circulation Element also designates SR 116 in the project area as an existing intercity transit route for Sonoma County Transit. Three school bus routes serving two school districts travel through portions of the proposed project area.

Traffic through the project area averages more than 16,000 trips per day. Future average daily trips are expected to increase to around 22,000 by 2024. Although SR 116 is located in rural Sonoma County, it is increasingly used as an east-west commute corridor.

2.4.2 Environmental Impacts

The project would not cause a substantial increase in traffic, degrade the level of service, or cause an increase in traffic congestion on Highway 116 or the Transfer Station Road. However, during the construction period, there would be construction activity that would require traffic controls such as temporary lane closures. For a discussion of temporary construction impacts to traffic, refer to section 2.11.1.2.

2.5 VISUAL / AESTHETICS

2.5.1 Affected Environment

The character of the landscape in the area of the project is distinctly rural. The landscape has an attractive and pleasant appearance. Views along Stage Gulch Road are dominated by farm-related land uses that include agricultural fields, grazing lands, vineyards, barns and other farm buildings, often with rolling foothills as a backdrop. A few widely scattered rural residences also are seen in the area. Scattered groups of mature, native California oak trees punctuate the grassy, rolling hills. Along some sections of the highway, mature trees and shrubs occur along the shoulders. Other sections lack significant vegetation and, consequently, allow motorists to enjoy long range views of the rural landscape. Although Stage Gulch Road between Adobe Road

and Arnold Drive is not a designated State Scenic Highway, it is identified in the Sonoma County General Plan as Scenic Highway Corridor.

For purposes of visual assessment, the project area was divided into three distinct landscape units. A landscape unit has certain visual attributes with regard to landform, vegetation and the built environment. The relationship of these elements to one another differs for each landscape unit and is what gives the unit its visual character. The three landscape units include the Adobe Road Unit (rolling hills, grazing lands and vineyards), Champlin Creek Unit (wooded creek valley), and the Arnold Drive Unit (flat recreational lands and residential development). The visual quality of all three landscape units was determined by Caltrans staff to be moderate.

2.5.2 Project Impacts

The project would not have a substantial adverse effect on scenic vistas, would not substantially damage scenic resources, and would not substantially degrade the existing visual character or quality of the project area. No aspect of the project would create a new source of substantial light or glare.

Implementation of the project including shoulder widening, realignment of curves, and construction of retaining walls would, to some degree, cause both temporary and permanent changes in the appearance of the highway, as shown in the photo simulations below (Figures B2-D2). Temporary changes would result from removal of vegetation, primarily trees and shrubs that would be replaced, and ground surface disturbance from grading within the project limits. Permanent changes would result from alterations to topography, realignment of the highway, a wider paved surface, and new retaining walls.

Existing and Simulated Conditions Before and After Proposed Project



Figure B1. Existing Highway 116 looking east, just east of Spolini Road.



Figure B2. Photo simulation of same location with proposed retaining wall



Figure C1. Existing Highway 116 looking west just east of Transfer Station Road.



Figure C2. Photo simulation of proposed retaining wall at same location.



Figure D1. Existing Highway 116 looking eastward just west of Watmaugh Road



Figure D2. Photo simulation of proposed conditions at same location.

According to an estimate prepared in Spring 2004, the project will require removal of approximately 234 trees including 124 Coast Live Oaks, 37 Valley and Oregon Oaks, 2 Blue Oaks, 24 Bay, 24 Buckeyes, 5 Willows, 3 Maples, 3 Eucalyptus, 2 Black Walnut, 1 Plum, and 3 Redwoods. These types of trees are common within the project area. The affected trees do not exhibit the unique or outstanding visual characteristics necessary to be considered Scenic Resources. Even so, their removal would have some degree of visual impact. Trees that would be affected occur at various locations and on both sides of the highway. In each case, more trees exist than will be removed. Thus removal of a portion of trees will reveal views of similar trees. In no case would the removal of trees expose unsightly areas. The proposed retaining walls would be new features along this portion of Stage Gulch Road and thus have the potential to be particularly noticeable.

While there would be some evident difference in the highway's appearance, its overall character and that of the roadside landscape would be relatively unchanged by the project. Visual quality of the surrounding area would not be changed by the project because all project-related work would be confined to the existing and proposed right-of-way itself.

2.5.3 Mitigation Measures

A tree planting program would be implemented to mitigate barren slopes, enhance existing vistas, replace former oak pockets, mitigate proposed walls and re-establish the natural character of the area. To mitigate the visual effects of tree removal, disturbed areas will be re-vegetated according to Caltrans standards; native oaks would be replaced on a 5:1 ratio or transplanted within a short distance of their origin. Non-native trees of significance would be replaced at a 5:1 ratio with native oaks. All trees would need to be planted during the rainy season. A three-year Plant Establishment Period (PEP) would be employed. This includes truck watering once a week for the first year and twice a month for years two and three. Where roadway curves are improved, the pavement of the former roadway would be removed and trees would be planted as environmental mitigation. To reduce the visual impacts of retaining walls and improve their compatibility with the rural landscape, they would be given aesthetic treatment consisting of surface texturing and color. Such treatments also reduce glare and help to soften their appearance. Where slopes are cut back to provide more room for the highway, the graded surfaces would be rounded to improve their appearance, except where this would increase the project's disturbance to trees. Standard erosion control measures would be applied to all disturbed areas.

2.6 CULTURAL RESOURCES

2.6.1 Regulatory Setting

"Cultural resources" as used in this document refers to historic and archaeological resources.

Under California law, cultural resources are protected by the California Environmental Quality Act (CEQA) as well as Public Resources Code Section 5024.1, which established the California Register of Historic Places. Section 5024.5 requires state agencies to provide notice to, and to confer with the State Historic Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historic resources.

2.6.2 Affected Environment

A review of existing literature documenting cultural resources and on-the-ground field survey for archaeological and historic architecture resources in the project study area were completed between August 2003 and May 2004.

The literature search did not identify any archaeological resources within the project area. However the record search did indicate that one prehistoric archaeological site is located within a 1-mile radius of the project area. No archaeological resources were identified in the study area during the field survey.

A literature search for architectural resources indicated that there are three buildings that are 50 years or older within the identified study area. No other cultural resources were recorded within a 1-mile (1.6 kilometer) radius of the project Study Area. No resources listed on the California Register of Historic Resources exist within or adjacent to the project study area.

A Caltrans architectural historian surveyed the project Study Area, with full access to all adjacent parcels. Within the Study Area, five properties with buildings older than 50 years were identified. These properties have been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines using the criteria outlined in Section 5024.1 of the California Public Resources Code, and are not considered historic resources under CEQA.

2.6.3 Project Impacts

Although no historic resources were identified within the project boundaries, it is still possible that buried archaeological deposits exist. If artifacts are discovered during construction activities such as excavation, all earth moving activities within and around the immediate discovery area would be diverted until a qualified archaeologist can assess the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that disturbances and activities shall cease. The County Coroner must be notified of the find immediately so that he/she may ascertain the origin. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, then the coroner will notify the Native American Heritage Commission who will then notify the Most Likely Descendant (MLD). The MLD may inspect the remains with the approval of the landowner or the landowners' authorized representative. The MLD may recommend scientific removal and nondestructive analysis.

2.7 HYDROLOGY AND FLOODPLAIN

2.7.1 Affected Environment

According to the Federal Emergency Management Agency (FEMA), the entire project is in an area of minimal flooding. For purposes of Federal Executive Order 11988, which requires projects with federal involvement to determine whether the project would take place in a floodplain, FHWA has determined that the proposed project would not take place in a floodplain. (Federal Emergency Management Agency 1991)

2.7.2 Project Impacts

There are numerous ditches and culverts throughout the project area that convey water. The current hydrologic system is inadequate to accommodate the changes to the roadway and would need to be improved as part of the project.

2.7.3 Mitigation Measures

No mitigation for flooding is necessary.

All longitudinal drainage ditches would be replaced everywhere that it is possible within the project limits. In addition, any necessary alterations to driveway culverts (drainage pipes under driveways, connecting two ends of a longitudinal drainage ditch) such as relocation or realignment due to highway widening would also be accomplished wherever necessary. A longitudinal drainage ditch would need to be installed along the roadway east of the County Transfer Station Road (between SON-116 and proposed retaining wall #5 as shown on Figure 1I). It would be necessary to install a below ground drainage system (a series of buried pipes) under the roadway or shoulder with drainage inlet gutters behind the retaining wall. Inlets that come through the retaining wall would be necessary to drain water from behind the wall.

2.8 WATER QUALITY AND STORM WATER RUNOFF

2.8.1 Regulatory Setting

The primary federal law regulating water quality is the [Clean Water Act](#) (CWA), implemented in part by the U.S. Environmental Protection Agency (EPA). The EPA has delegated its authority in California in part to the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCB). Section 401 of the Act requires a water quality certification from the State Board or Regional Board when a project: 1) requires a federal license or permit (a Section 404 permit is the most common federal permit for Department projects), and 2) will result in a discharge to waters of the United States.

Section 402 of the Act establishes the National Pollutant Discharge Elimination System (NPDES) permit system for the discharge of any pollutant (except dredge or fill material) into waters of the United States. To ensure compliance with Clean Water Act Section 402, the State Water Resources Control Board (SWRCB) has issued Caltrans an [NPDES Statewide Storm Water Permit](#) to regulate storm water discharges from Caltrans facilities (Order No. 99-06-DWQ, CAS000003).

In addition, the SWRCB has issued a statewide Construction General Permit for construction activities (Order No. 98-08-DWQ, CAS000002), that applies to all storm water discharges from land where clearing, grading, and excavation result in disturbances of 0.4 hectares (1 acre) or more. All projects that are subject to the Construction General Permit require a Storm Water Pollution Prevention Plan (SWPPP).

2.8.2 Affected Environment

The Stage Gulch Project is in the San Pablo Basin watershed, which is within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (Region 2). The direct receiving water bodies for the project are Champlin Creek and an unnamed tributary of Adobe Creek in the northwest. These water bodies are not on EPA's 303(d) List of impaired water bodies.

Rain water that falls over most of the project area discharges to Champlin Creek, which crosses SR 116 six times within the project limits. Champlin Creek, an intermittent stream, drains to Sonoma Creek and eventually to San Pablo Bay. A small portion of the northwest section of the project area drains to an unnamed tributary of Adobe Creek, which drains to Petaluma River and eventually to San Pablo Bay.

Sonoma Creek and Petaluma River are EPA's 303(d) listed impaired water bodies. Sonoma Creek is listed for nutrients, pathogens, sediments, and silt. Petaluma River is listed for Diazinon, nutrients, pathogens, sediments, and silt. Since the storm water discharges from the highway will travel through Champlin Creek and the unnamed tributary of Adobe Creek for more than a mile before reaching Sonoma Creek or Petaluma River, there should be no effects to these water bodies from the project.

2.8.3 Project Impacts

Caltrans has performed many studies to monitor and characterize highway storm water runoff throughout the State. Commonly found pollutants are Total Suspended Solids (TSS), nutrients, pesticides, metals, pathogens, litter, Biochemical Oxygen Demand (BOD), and Total Dissolved Solids (TDS). Some sources of these pollutants are natural erosion, phosphorus from tree leaves, combustion products from fossil fuels, the wearing of brake pads, and droppings of wild and domestic animals within State right-of-way.

The project proposes to widen shoulders throughout the project area to standard widths. Pavement decreases the amount of rain water that can soak into the ground, so the quantity of storm water runoff would increase. Also changes to the roadway such as curve improvements would necessitate drainage alterations, both within the creeks and in the roadway ditches and culverts.

Because of the area's high groundwater levels, ground water may be encountered in wall and drainage headwall excavations. Early discussion shall be initiated regarding the handling and disposal of this water during the design phase. Also, the ground water would be tested for potential contamination as part of the Hazardous Waste Site Investigation. Proper handling and disposal of the ground water would be based on the levels of contaminants reported in the Site Investigation Report.

2.8.4 Mitigation Measures

Project measures to protect water quality are documented in two types of permits required under the Clean Water Act. Permit requirements under Section 401 of the Act deal with protecting creeks and ditches that are subject to ACOE's 404 permit requirements. Permits for Section 402 of the same Act, including the NPDES permit and the Construction General Permit, protect the quality of the water that leaves the highway features such as roadways, banks, culverts and ditches.

1) Section 401 of the Clean Water Act

Caltrans must obtain a Section 401 Water Quality Certification or Waiver from the Regional Water Quality Control Board before final design of the project is completed. In order to obtain the Section 401 certification, wetland and waters impacts (which are covered by Section 404 of the Clean Water Act) need to be determined. The Section 401 Certification or Waiver would describe all activities to be performed within the creek that could impact water quality. It would also include all the Best Management Practices (BMPs) to be implemented to minimize or eliminate water quality impacts.

2) Section 402 of the Clean Water Act

According to Caltrans NPDES permit and the Construction General Permit, Best Management Practices (BMPs) would be incorporated into this project to reduce or avoid the discharge of pollutants during construction as well as permanently to the Maximum Extent Practicable (MEP). These BMPs fall into three categories: Design Pollution Prevention BMPs, Temporary Construction Site BMPs, and Permanent Treatment BMPs.

One construction activity that needs precautions to protect water quality is the extraction of groundwater from pits or ditches, known as de-watering. Caltrans shall consult with RWQCB regarding the handling and disposal of this water during the design phase. If the water is found to be uncontaminated and acceptable by the RWQCB to be discharged back into the creek, appropriate Temporary Construction Site BMPs or Permanent Treatment BMPs would be required to reduce or avoid any potential discharge of pollutants.

This project's Design Pollution Prevention BMPs are primarily used to reduce erosion, stabilize disturbed soil areas, and maximize vegetated surfaces. Erosion control measures would be provided on all disturbed areas. Project construction activity is characterized primarily by the widening of Highway 116 throughout the corridor, including one section of significant realignment. Cutting and fill for the realignment and retaining walls generally necessitate mitigation in the form of vegetated swales and would include permanent erosion control measures such as hydro-seeded revegetation and erosion control netting. (Cutting consists of excavation of existing soil, and fill consists of importing additional material to construct the roadway, usually soil or gravel). Due to the sensitivity of the creeks, particular attention would be given to insure these areas receive the most effective application of the previously mentioned permanent erosion control measures.

Outlet protection and velocity dissipation devices placed at the downstream end of culverts and channels are also Design Pollution Prevention BMPs that reduce runoff velocity and control erosion and scour. The need for these devices in this project will be further investigated during the design phase.

The final category of BMPs, Permanent Treatment BMPs, are effective at removing contaminants of concern, including total dissolved solids (TDS), particulate metals and litter. These BMPs include Biofiltration Swales, Infiltration Basins, and Detention Basins. Due to potential high ground water within the project area, infiltration basins do not seem feasible. Biofiltration Swales and Detention Basins are being investigated as possible alternatives.

2.9 GEOLOGY / SOILS / SEISMIC / TOPOGRAPHY

This section discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. The Department's Office of Earthquake Engineering is responsible for assessing the seismic hazard for Department projects. The current policy is to assess the hazard if the project area was subjected to the Maximum Credible Earthquake (MCE), from young faults in and near California. The MCE is defined as the largest earthquake that can be expected to occur on a fault.

2.9.1 TOPOGRAPHY AND SEISMICITY

2.9.1.1 Affected Environment

Sonoma County lies in the California Coast Ranges, a northwest-trending band of folded and faulted mountains that roughly parallel the San Andreas fault zone. The Coast Ranges consist of folded Tertiary sedimentary rocks, with minor metamorphic and volcanic components.

The region is highly seismically active, with numerous active and potentially active faults. East of the San Andreas fault zone, the bedrock is the Cretaceous Franciscan Formation. The Rodgers Creek fault zone is a major strike-slip fault in Sonoma County.

Seismicity

The project passes through the Rodgers Creek fault zone. The Rodgers Creek fault has been active in the last 11,000 years (Wagner and Bortugno 1982) but has not had a major historical earthquake (Working Group on Northern California Earthquake Potential 1996). The most recent major earthquake may have occurred about 230 years ago (Budding et al. 1991). The Rodgers Creek fault zone is considered to be the northern extension of the Hayward fault zone. The Working Group on Northern California Earthquake Probabilities (2003) considers the Rodgers Creek and Hayward fault zones capable of rupturing together. They have assigned the Rodgers Creek-Hayward faults a probability of 27% of producing one or more earthquakes of M 6.7 or greater in the next 30 years.

There have been no major historical earthquakes attributed to the Rodgers Creek fault. However, the project area has experienced large ground motion produced by regional earthquakes, and numerous small earthquakes have occurred in Sonoma County. The following are historical earthquakes that produced shaking at the site.

The 1906 Great San Francisco Earthquake

The April 18, 1906, Mw 7.7 earthquake produced strong shaking at the project site and resulted in near total destruction in nearby Santa Rosa. In the less populated Petaluma and Sonoma Valleys, chimneys toppled. Damage was reported in Lakeville, at the eastern end of the site.

The 1969 Santa Rosa Earthquake

On October 1, 1969, a pair of earthquakes of M 5.6 and M 5.7 on the southern end of the Healdsburg fault caused damage in Santa Rosa. No deaths occurred, but damage

was sustained to structures. Numerous breaks in the water system pipes and pavements were reported. The damage was largely confined to a northwest-trending zone above the fault trace.

Liquefaction

Seismic activity can trigger liquefaction in areas that are underlain by deep, unconsolidated soils that are saturated with groundwater. Highway 116 near Champlin Creek (KP 68.8-71.8/PM 42.6-44.5) crosses areas considered to have moderate liquefaction hazard (Knudsen et al. 2000).

2.9.1.2 Impacts and Protective Measures

Since the Rodgers Creek fault crosses in the project area, ground shaking is a near-certainty in the event of an earthquake on this fault. However, this project does not increase the risk to the public above the current risk.

Ground rupture could occur on Highway 116 in the event of an earthquake large enough to produce surface rupture (generally a magnitude 6 or greater). Most ground rupture is limited to the active fault trace and generally does not result in an offset of more than a few centimeters.

The project would require a retaining wall to be constructed across the fault zone. To minimize the risks associated with fault rupture, the wall would be a flexible soil nail wall. Each nail acts independently and the soil nail wall will be built in several stepped lifts rather than as a single face. In the event of fault rupture, the wall would fail over a limited area immediately adjacent to the rupture. The failure would not compromise the wall and the wall could be repaired quickly.

Typically, no special mitigation measures are taken for roads built on liquefiable soils. In road construction, the native soil may be removed and replaced with a suitable fill. Mitigation measures may be taken for structures such as bridges or retaining walls, planned in liquefiable zones. Most of the retaining walls on this project are soil nail walls, which do not have foundations, and are flexible and built to withstand deformation.

If parts of the project area are found to be susceptible to liquefaction during exploratory drilling, mitigation measures such as stone columns, sub-excavation, dynamic compaction, or de-watering methods could be implemented during construction.

2.9.2 SITE GEOLOGY AND SOILS

2.9.2.1 Affected Environment

The project site is mapped in andesitic and basaltic lava flows of the Sonoma Volcanics (Wagner and Bortugno 1982). The Pliocene Sonoma Volcanics extend over about 3,200 km² in Sonoma and Napa Counties. They are about 1,500 meters thick. Andesitic and rhyolite flows make up the bulk of the section, along with tuffs and agglomerates. Quaternary deposits in the project area are restricted to alluvium along the creek bed and in the flat eastern end of the project site.

The slope stability map for Sonoma County (California Division of Mines and Geology 1980) shows numerous slides that toe out into the right-of-way along Champlin Creek.

The project passes through a narrow canyon (KP 68 to 70.4/PM 42.2 to 43.6) that is mapped as 'relatively unstable rock and soil units,' on slopes greater than 15%. The Sonoma Volcanics are generally highly erodible. Erosion is present along the cuts between KP 68 and 70.4 (PM 42.2 to 43.6). At other areas along the alignment, the cuts are flatter and erosion is limited to localized slipouts and surficial failures. The areas outside the canyon on the northeast and southwest ends of the project should not present slope stability problems.

The project area is underlain by the Haire-Diablo soils and by soils of the Goulding-Toomes-Guenoc association (USDA Soil Conservation Service 1972). The Sonoma County soil survey lists the soils present in the project area as having low to moderate shrink-swell potential. Shrink-swell potential indicates the likelihood that a soil association will expand when wetted. Soil expansion can damage roadbeds and structures such as bridge footings or retaining walls.

The soil survey for Sonoma County (USDA, 1972) classifies the soils present in the project area as having "severe limitations for septic tank filter fields."

2.9.2.2 Impacts and Protective Features

All cuts and walls planned for this project are checked against slide maps. Cuts are sloped back enough to prevent sliding. This project would not increase the risk from landslides to life or property.

Most of the widening is being accomplished with walls, rather than large cuts. Erosion would not occur behind a wall. Erosion control would be implemented on cut slopes. This project would not increase risk to life or property from erosion above the current level.

If expansive soils are found to be present along the project alignment during exploratory drilling, mitigation measures would be implemented in design and construction. Potential treatment actions for impacted expansive soils include the use of lime, cement, fly ash, compaction control measures, moisture control measures, and/or removal and replacement with non-expansive backfill. These measures would be explored during the design/ construction process when subsurface investigations and borings are performed.

2.10 BIOLOGICAL ENVIRONMENT

The Biological Environment section of this document is broken into the following subsections:

Natural Communities

Wetlands and Other Waters

Animal Species

Threatened & Endangered Species

2.10.1 NATURAL COMMUNITIES

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed below in the Threatened and Endangered

Species section, 2.10.5. Wetlands and other waters are also discussed below in section 2.10.2.

2.10.1.1 Affected Environment

Champlin Creek is an intermittent creek that flows from west to east, and empties into Rodgers Creek, then Fowler Creek before draining into Sonoma Creek and into San Pablo Bay, approximately 13.2 kilometers (8.2 miles) to the southeast of the project site.

Climate in this area is typical of northern California's Mediterranean type climate with warm summers and comparatively warm wet winters. The average annual air temperature is 14° C to 16° C (58°F to 60°F), the average frost free period is 260 to 290 days, and the average annual rainfall is 55.9 to 88.9 centimeters (22.0 to 35.0 inches). Brief periods of flooding can occur from December through April (Miller, 1972).

Because of the area's history of agricultural landuse, the natural environment of the project site and the immediately surrounding area has been greatly diminished in quality from its natural state. Historically, the plant cover of the area consisted of annual and perennial grasses, forbs, and several scattered oak trees (Miller, 1972). Stretches of Champlin Creek adjacent to Highway 116 are disturbed and generally lack riparian cover; however, there is substantial riparian cover nearby, which provides for good habitat through the project area.

The project area, though moderately disturbed by historic activities, contains five different natural communities: roadside vegetation, agricultural/vineyard, pasture/grassland, oak/bay woodland and riparian habitat. Roadside vegetation varies, but in general contains ruderal grasses, thistles and other herbaceous annual weeds. Yellow star thistle is common in the project area. None of the species on the California list of noxious weeds is currently used by the Department for erosion control or landscaping in Sonoma County. The agricultural/vineyard land contains cultivated crops, almost exclusively planted in grapes used for wine-making. The pasture/grassland has been extensively grazed and is not representative of an undisturbed, pre-agricultural grassland environment. Typical vegetation types found within this community are wild oats, perennial rye-grass, purple needle grass and pigweed. The two remaining natural communities are discussed in detail below.

Riparian Community

Highway 116 crosses the riparian habitat of Champlin Creek in several locations. This habitat corridor is made up of mixed oak woodland species. The riparian corridor is suspected of supporting migration of Red Legged Frog, Northwestern Pond Turtle, and Steelhead (Steelhead in the lowland reaches of Champlin Creek). The highway has several culverts or crossings that allow for some wildlife passage. Further discussion of threatened or endangered species is found in Section 2.10.5 below.

The dominant vegetation types found in the riparian corridor of Champlin Creek and its drainages typically includes plants such as mugwort, cattail, a variety of rushes and sedge grasses, Poison Oak, California blackberry, nettles, and willows. Coast live oaks, valley oaks, California bays, and California buckeyes are the most common tree species of the riparian corridor.

Oak/Bay Woodland

The oak-bay woodland community occurs primarily through the middle one-third of the project. Dominant plants in this area include mugwort, hairy honeysuckle, sticky monkeyflower, purple needlegrass, snowberry, and poison oak. Coast live oaks and Black Oaks are the most common tree species of the oak-bay woodland community, but there are also valley oaks, California bays, Big Leaf Maple, Madrone and California buckeyes.

On the south side of Stage Gulch Road and west of the intersection with transfer station access road, vegetation along the creek consists mainly of valley oak, coast live oak, California bay laurel, California buckeye, coyote brush, and poison oak.

All of the above communities can provide habitat for various animal species, which are discussed in more detail below, in section 2.10.3.

2.10.1.2 Project Impacts

The project proposes to realign the highway at a critical section of this corridor and restore the creek, thus providing a more natural, uninterrupted habitat for wildlife. Work would be necessary to realign the creek in those sections where the road (and its culverts) would be removed. Impacts to this riparian habitat would include culvert extensions and replacements, and the inclusion of some fill slopes into the creek area. Widening of the highway adjacent to the creek would likely require some loss of trees which would reduce the shading of the water, thereby raising the water temperature for aquatic species.

Impacts to plants would be due to disturbance of small areas of grassland, oak woodland and riparian areas adjacent to the roadway to be widened and in the area of realignment. According to an estimate prepared in Spring 2004, the project would require removal of approximately 234 trees including 124 Coast Live Oaks, 37 Valley and Oregon Oaks, 2 Blue Oaks, 24 Bays, 24 Buckeyes, 5 Willows, 3 Maples, 3 Eucalyptus, 2 Black Walnuts, 1 Plum, and 3 Redwoods.

2.10.1.3 Minimization and Mitigation Measures

By adopting the proposed realignment of the highway it would be possible to limit the tree impacts within the riparian area. Where it is possible, the realignment and widening would be shifted away from riparian areas and ACOE jurisdictional waters. In order to do work that might affect the creek, Caltrans would enter a Steambed Alteration Agreement (Section 1601) with the California Department of Fish and Game (CDFG). CDFG would ensure that the Agreement includes work practices and restrictions that protect the creek. The Agreement is also likely to require creek restoration measures.

Preserving the visual quality of the project area would require tree planting at approximately the ratio of one tree planted for each tree removed. Tree replacement ratios associated with oak woodland and riparian habitat would be compensated for at a ratio of 5:1. The determination of the overall mitigation area as well as the species to be planted would be established as the mitigation plan/proposal is developed in cooperation with the various regulatory agencies.

In compliance with the Executive Order on Invasive Species, E.O. 13112, and subsequent guidance from the Federal Highway Administration, the landscaping and

erosion control included in the project would not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions would be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

2.10.2 WETLANDS AND OTHER WATERS

2.10.2.1 Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Clean Water Act (33 U.S.C. 1344) is the primary law regulating wetlands and waters. The Army Corps of Engineers (ACOE) has the primary responsibility to enforce the wetlands provisions of the Clean Water Act. The pertinent sections and provisions of the Clean Water Act are discussed in detail in Section 2.8, Water Quality and Storm Water Runoff.

At the state level, wetlands and waters are regulated primarily by the Department of Fish and Game (CDFG) and the Regional Water Quality Control Boards (RWQCB). Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFG before beginning construction. If CDFG determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFG jurisdictional limits are usually defined by the top of bank of lakes and streams, or the outer edge of riparian vegetation. Waters of the U.S., including wetlands under jurisdiction of the ACOE, may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFG.

2.10.2.2 Affected Environment

Wetlands, as defined by the ACOE, occur throughout the project area. These areas are primarily associated with roadside ditches and with Champlin Creek.

2.10.2.3 Project Impacts

In those locations where culvert extensions are proposed, permanent losses of ACOE jurisdictional areas may result. In the area of the realignment, enhancement and restoration activities would temporarily affect ACOE jurisdictional waters. Widening Highway 116 to provide standard shoulder widths would affect approximately 0.34 acres of ACOE jurisdictional "waters of the U.S.," about 0.11 acre of which would be permanent and 0.23 acre of which would be temporary. Of the areas lost to permanent impacts, about 0.035 acres would be wetlands and 0.073 acres would be classified as "other waters of the U.S." Temporary impacts to jurisdictional wetlands are about 0.028 acres of wetlands and 0.21 acres of "other waters of the U.S."

2.10.2.4 Minimization and Mitigation Measures

Impacts to ACOE jurisdictional wetlands and waters of the U.S. would be avoided using measures outlined in sections for Water Quality (Section 2.8), Natural Communities

(Section 2.10.1), and Threatened and Endangered Species (Section 2.10.4). Because the project proposes alteration to an existing roadway, relocating the project is not a practicable alternative, although a portion of the road is being realigned to minimize harm to the environment.

Based on the above considerations, Caltrans and ACOE have determined that there is no practicable alternative to the proposed construction in ACOE jurisdiction and that the proposed action includes all practicable measures to minimize harm to wetlands that may result from such use.

ACOE Nationwide permits (#3, #14, #27 and #41) would be necessary. All criteria set forth by the Army Corps would be met before and during construction.

2.10.3 ANIMAL SPECIES

2.10.3.1 Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NOAA Fisheries) and the California Department of Fish and Game (CDFG) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with wildlife not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.15.5. All other special-status animal species are discussed here, including CDFG fully-protected species and species of special concern.

2.10.3.2 Affected Environment

Caltrans biologists identified several animal species identified during field surveys conducted between January 2001 and August 2004. Birds observed in the area include red-tailed hawks, red-shouldered hawks, turkey vultures, downy woodpeckers, chickadees, and barn swallows. Bullfrogs, Pacific treefrogs, bluegills, crayfish, and minnows were observed in some of the deep ponded areas of Champlin Creek. A California red-legged frog was identified in August 2004; this “threatened” species is discussed further in Section 2.15.5. A California vole was also observed near the roadway.

Due to the proximity of the roadway there were also several animal carcasses identified including a deer, a gopher snake, a mourning dove, sparrows, and a common king snake. Two juvenile northwestern pond turtles, a federally-listed species of concern, were also found dead beside the roadway.

Cliff swallow nests and bat guano remains were observed inside some of the Champlin Creek culverts during the field surveys.

2.10.3.3 Project Impacts

Shoulder widening and realignment of the highway would necessitate removal of some mature trees, causing the potential loss of foraging, roosting, and nesting habitat for birds, bats, and other small animals.

Construction activities would disturb creek areas, which provide habitat for the northwestern pond turtle during the wet season, and would potentially disturb upland areas where the pond turtles travel between Champlin Creek and the agricultural ponds during the hot dry months of the summer.

2.10.3.4 Minimization and Mitigation Measures

Because of the importance of oak woodland habitat, the project design would avoid and minimize the loss of trees from the proposed realignment. Oak trees will be replanted in or near the project area in a ratio to be determined in consultation with the California Department of Fish and Game. Tree planting would be an integral component of the restoration of Champlin Creek, which would further improve habitat for native flora and fauna. The determination of the overall mitigation area as well as the species to be planted would be established as the mitigation plan/proposal is developed in consultation with the pertinent regulatory agencies.

Construction activities in the creeks would be prohibited in the winter and spring, as described below in the discussion of the red-legged frog. This would also prevent wet-season impacts to the northwestern pond turtle. During all seasons of the year, the Caltrans biologist would monitor for the northwestern pond turtle in the appropriate habitat. Any turtles with the potential to be disturbed by project activities would be relocated.

2.10.4 THREATENED AND ENDANGERED SPECIES

2.10.4.1 Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): United States Code (USC), Section 1531, *et seq.* (see also 50 CFR Part 402). This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NOAA Fisheries) to ensure that they are not undertaking, funding, permitting or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 is a Biological Opinion or an incidental take permit. Section 3 of FESA defines "take" as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

The primary state law protecting threatened and endangered species is the California Endangered Species Act (CESA). The state has also enacted California Fish and Game Code, Section 2050, *et seq.* CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project caused losses of listed species populations and their essential habitats. The California Department of Fish and Game (CDFG) is the agency responsible for implementing CESA. Section 2081 of the Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species.

Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit can be issued by CDFG. For projects requiring a Biological Opinion under Section 7 of the Federal Endangered Species Act (FESA), CDFG may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

2.10.4.2 Affected Environment

The project area includes habitat of the California red-legged frog (CRLF), which is on the US Fish and Wildlife Service's list of "threatened" species. The Central California Coastal steelhead, which is also on the "threatened" list, could potentially use Champlin Creek for habitat.

The surrounding environment consists mainly of vineyards and grazing pastures. Field surveys conducted by Caltrans biologists did not indicate the presence of any sensitive species of plants and no suitable habitat was present on site that could provide for growth of any sensitive plants that may have been historically present in the area. Correspondence occurred with California Department of Fish and Game (CDFG) on May 27, 2003 concerning sensitive animal species potentially found in the area. CDFG believes Champlin Creek, that is crossed by SR 116 at five locations, may provide a migration corridor for a federally-listed threatened anadromous fish, the Central California Coastal steelhead, despite the shallow and intermittent flows of the creek through the project area. Correspondence with CDFG indicates that Central California Coastal steelhead may be found in isolated pools with sufficient water, and that it is possible that short reaches of Champlin Creek with perennial water provide possible habitat for steelhead. However, no records of steelhead in Champlin Creek near the project area have been found.

During a field review on August 27, 2004, Department biologists observed a mature CRLF just downstream from the Sonoma County Transfer Station Road (see Photo 1). According to the California Natural Diversity Database (CNDDB), there have been ten additional sightings of the frog within 10 kilometers of the project area over the past ten years (**Figure E**).



Photo 1. Mature California red-legged frog observed by Caltrans staff during field review immediately north of Transfer Station Road in Champlin Creek (August 27, 2004).



Figure E. County Map of Sonoma showing the approximate location of the Sonoma 116 Curve Improvement and Widening Project and the proximity of the 13 historical sightings of California red-legged frog in the county as indicated by the California Natural Diversity Database (CNDDB, September 26, 2003) and Caltrans.

2.10.4.3 Project Impacts

Permanent impacts to wildlife habitat would result from extending the existing culverts for the roadway widening and straightening of the two curves within the project limits. Drainage would be modified where necessary. The road widening adjacent to Champlin Creek could potentially result in removal of some of the larger trees near the creek. This loss of tree canopy would likely result in decreased shading of the creek and a resulting rise in creek water temperature which may impact the aquatic species that reside in the creek.

Temporary impacts would result from grading the creek banks near the culvert crossings for contractor access. Additional temporary impacts would be incurred through removal of existing culverts to install fish-friendly passages and at restoration locations along Champlin Creek.

Reconstruction of the two culverts under the Sonoma County Transfer Station Road would result in the relocation of the CRLF pond identified by Caltrans staff on August 27, 2004. This would be considered a loss of a pond measuring approximately 150 square feet.

2.10.4.4 Avoidance and Minimization Measures

Construction activities would be limited to the dry summer months (June to October) to avoid impacts to CRLF breeding behavior during the spring. Construction materials used to maintain flow and divert water from the project area during the construction period, including cofferdams, pipe, filter fabric, and gravel would be removed after completion of the project from the streambed. Excess soil may be disposed of at an upland site approved by Caltrans. Native riparian plantings and restoration of a portion of the Champlin Creek will mitigate for impacts incurred during construction. The Department's standard water quality BMPs would be employed which would aid in the conservation and protection of the resources within and adjacent to the project area.

Exclusion measures would be taken during construction to avoid impacts to CRLF and habitat that supports CRLF. Exclusion fences would be placed at the perimeter of the project area to prevent CRLF from getting into the project area. Relocation of any CRLF would require an incidental take permit from the USFWS. CRLF would be removed and relocated from the site by a USFWS-approved biologist. The construction crew would be educated on how to respond to CRLF if found within the project area, and a Caltrans biologist would be on call to respond to findings of CRLF in the project area.

Mitigation has been proposed in an area between KP 69.75 and 70.31 (PM 43.34 to 43.69) where SR 116 would be realigned. The existing roadway over Champlin Creek in this area would be removed, and Champlin Creek would be restored. Native tree plantings would occur in the area to increase shading over the creek, which would benefit threatened and endangered species.

2.11 TEMPORARY CONSTRUCTION IMPACTS

2.11.1 Affected Environment

The proposed project has the potential to create a number of temporary construction impacts to resources located in the project limits. These impacts include soil disturbance due to excavation and vegetation removal and traffic disruption caused by temporary lane closures. The resources impacted would include air quality/noise, traffic/circulation (Section 2.4), and public services (Section 2.2).

2.11.2 Project Impacts

The proposed project would generate air pollutants during construction. Trucks and construction equipment emit hydrocarbons, oxides of nitrogen (NO_x), carbon monoxide (CO), and suspended particulate matter (PM₁₀ and PM_{2.5}). Most pollution would consist of wind-blown dust generated by excavation, grading, hauling, and various other activities. The impacts from the above activities would vary from day to day as construction progressed.

Some temporary noise disturbance would occur during construction, associated with operation of construction machinery and equipment.

Construction activity would require traffic controls such as lane closures. Traffic would be subject to delays during various periods throughout the construction. Such delays may affect public services such as public transit and school bus schedules. Emergency services may also experience delays during these periods. Some night construction would be necessary in order to reduce impacts to traffic circulation during the day. Temporary closure of Transfer Station Road would be necessary to improve the drainage underlying the road and to increase the profile of the road where it intersects with SR 116. Waste management vehicles using the transfer station would need to be re-routed to other facilities during this temporary closure.

2.11.3 Mitigation Measures

The Special Provisions and Standard Specifications in the construction contract for the proposed project would include requirements to minimize or eliminate construction-related dust through the application of water or dust palliatives. Caltrans and its contractors would comply with “fugitive dust” emissions rules and policies to minimize construction dust impacts.

During construction, Caltrans would implement a Traffic Mitigation Plan (TMP) to minimize traffic impacts using such measures as a public awareness campaign, alternative routes (detours), one-way traffic controls, and night work. Caltrans recognizes the importance of public awareness to its projects. Various media would be utilized during the campaign, such as press releases, a web page, a telephone hotline and public meetings. Changeable message signs and ground-mounted signs would be employed to provide advance notice to motorists regarding potential delays and/or available detours during construction throughout the project. Temporary lane closures may be required for construction of retaining walls and replacement of drainage culverts that cross Stage Gulch Road. Temporary concrete barriers would be used where

excavation takes place. Construction would be carefully staged to keep traffic delay to a minimum.

Coordination with Sheriff, Fire, CHP, public transit and local school districts would occur to minimize the temporary impacts to these services.

2.12 CUMULATIVE IMPACTS

2.12.1 Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably-foreseeable future actions, combined with the potential impacts of this project. A cumulative effects assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

CEQA Guidelines Section 15130 describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts under CEQA can be found in Section 15355 of the CEQA Guidelines.

The Department has identified three proposed projects near Stage Gulch for its analysis of cumulative impacts:

- Transfer Station Road Project;
- Carneros View Winery Production Facility and Tasting Room; and
- Tolay Park.

2.12.2 Affected Environment

The proposed highway project's impacts to the following environmental resources are less than significant, but need to be studied for their potential to contribute to a cumulatively-significant impact.

- California Red Legged Frog
- Steelhead Trout
- Water Quality
- Visual Quality

2.12.3 Project Impacts and Mitigation Measures

Impacts from the proposed highway project and the three other identified projects can be considered in combination.

California Red Legged Frog and Steelhead Trout

Impacts to both CRLF and Steelhead from the proposed project and reasonably foreseeable projects can be expected. The Transfer Station Road Project and Carneros View Winery have the potential to impact Champlin Creek with sheet piling and or soil movement during construction; however, effective protective measures for both species are available. Measures such as seasonal avoidance (construction windows) and habitat replacement would be used by the proposed project and would be available for use by the above-listed projects. The Tolay Park project is in itself a habitat restoration project and would be funded and regulated in part by the responsible agencies. Cumulative impacts from the above-listed projects would not be significant.

Water Quality

Construction of any of the four projects listed has the potential to cause erosion, which can effect water quality. However, measures are available that prevent water quality impacts due to erosion. Effective measures are also available to treat the types of contaminants associated with highway projects. The Regional Water Quality Control Board, which takes a cumulative approach to analyzing water quality, has the authority to impose protective measures on all the identified projects. Cumulative impacts from the above-listed projects would not be significant.

Visual Quality

All of the above listed projects would cause some alteration to the physical environment. However, measures to lessen the impacts such as aesthetic treatments, vegetation screening and habitat restoration would be implemented. Such measures will ensure that the cumulative impacts from the above-mentioned projects would not constitute a substantial adverse change to the visual character of the area and would not be a significant impact.

3 Chapter 3 AGENCY COORDINATION AND PUBLIC INVOLVEMENT

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis, potential impacts and mitigation measures and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including: project development team meetings, interagency coordination meetings, public informational meetings and newspaper articles. This chapter summarizes the results of the Department's efforts to fully identify, address and resolve project-related issues through early and continuing coordination.

3.1 CONSULTATION AND COORDINATION WITH PUBLIC AGENCIES

As part of the consultation process, several agencies were contacted in regard to this project. USFWS, NOAA Fisheries, CDFG, NAHC and RWQCB were contacted by letter (see Section 3.3 Agency Correspondence), phone and in person on various dates. Field reviews were held with United States Army Corps of Engineers, NOAA Fisheries, United States Fish and Wildlife Service and California Department of Fish and Game on September 18, 2003, April 26, 2004 and May 19, 2004.

United States Fish and Wildlife Service

- Field Meeting 9/18/03
- Sent letter 2/24/2004
- Field Meeting 5/19/04

National Oceanographic and Atmospheric Administration/National Marine Fisheries Service

- Sent letter 2/24/04
- Field meeting 5/19/04

United States Army Corps of Engineers

- In office consultation 8/28/03
- Field meeting 9/18/03

California Department of Fish and Game

- Sent letter 2/24/04
- Field meeting 9/18/03
- Field meeting 4/26/04

Regional Water Quality Control Board

- In office consultation January 2004
- In office consultation February 2004

Native American Heritage Commission

- Sent letter 7/2/2003
- Received response 7/11/2003

3.2 PUBLIC INVOLVEMENT

In addition to consultation with public agencies, meetings to inform local residents and interested parties were held. An informational meeting was held on July 18, 2003. Landowners expressed concern over traffic safety in the corridor and the proposed schedule for delivery of the currently proposed project. The meeting was well attended, with approximately 50 people present. A public meeting to present the proposed project and accept public comments on this environmental document is scheduled for November 16, 2004.

As part of the public outreach process, a presentation on the proposed project was given at the monthly Board meeting of the Sonoma County Transportation Authority on February 19, 2004. Monthly updates have been given to the Board subsequent to the original presentation, and will be on-going until such time as the proposed project is implemented.

Local newspapers ran several articles on the Department's intention to improve Highway 116. Articles appeared in the Santa Rosa Press Democrat on July 18th, 2003, January 11, 2004 and February 16, 2004. The town of Sonoma's newspaper, the Index-Tribune, ran articles on July 8, 2003, July 15, 2003, and February 17, 2004. Before the July 2003 and February 2004 meetings the papers notified the public of the upcoming meetings and provided logistical information on attending them.

3.3 AGENCY CORRESPONDENCE

DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5681
FAX (510) 286-5600
TTY (800) 735-2929



Flex your power!
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February 24, 2004
04 Son 116
04-283800

Mr. Dan Buford
U.S. Fish and Wildlife Service
2800 Cottage Way, W-2605
Sacramento, CA 95825

Attention: Mr. Vincent Griego

Dear Mr. Griego,

On September 18, 2003, Caltrans Senior Biologist Chuck Morton and Associate Biologist Chris States met with you in the field to review the Sonoma County Route 116 curve correction project. We discussed that the project limits are located along the northern limit the current range of California red-legged frog, (CRLF) (*Rana aurora draytoni*) and that the County had identified a known breeding sites for the CRLF within a half mile radius of the project. During our meeting you stated that if avoidance measures were in place (i.e. seasonal restraints, minimization of riparian disturbance), that US Fish and Wildlife Service could determine that the project would have a "not likely to adversely affect" finding for the CRLF.

The Caltrans environmental and design staff are taking every possible opportunity to implement avoidance and minimization measures to avoid impact to the CRLF and its habitat. As discussed at our September meeting we will be implementing the realignment design south of the existing roadway and riparian corridor.

We also discussed with you Caltrans plans to remove the abandoned box culverts and section of roadway and restore the natural meander to the creek. As a component to the riparian restoration we intend to enhance the terrestrial habitat. Considering the realignment away from the riparian corridor and known breeding pond, creek restoration, and enhancement of the upland habitat are you still in concurrence with a "not likely to adversely affect" finding?

If you have any questions please contact Chris States at (510) 286-7185 or me at (510) 286-5681.

Sincerely,

A handwritten signature in black ink, appearing to read "Chuck Morton".

Chuck Morton
District Branch Chief
Caltrans, District 4

DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5681
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February 24, 2004
04 Son 116
04-283800

Mr. Fred Botti
California Department of Fish and Game
PO Box 47
Yountville, CA 94599

Dear Mr. Botti,

On September 18, 2003, Caltrans Senior Biologist Chuck Morton and Associate Biologist Chris States met with you in the field to review the Sonoma County Route 116 curve correction project. We discussed that the project limits are located along the northern limit the current range of California red-legged frog, (CRLF) (*Rana aurora draytonii*) and that the County had identified a known breeding sites for the CRLF within a half mile radius of the project. During our meeting you stated that if avoidance measures were in place (i.e. seasonal restraints, minimization of riparian disturbance), that US Fish and Wildlife Service could determine that the project would have a "not likely to adversely affect" finding for the CRLF.

The Caltrans environmental and design staff are taking every possible opportunity to implement avoidance and minimization measures to avoid impact to the CRLF and its habitat. As discussed at our September meeting we will be implementing the realignment design south of the existing roadway and riparian corridor.

We also discussed with you Caltrans plans to remove the abandoned box culverts and section of roadway and restore the natural meander to the creek. As a component to the riparian restoration we intend to enhance the terrestrial habitat. Considering the realignment away from the riparian corridor and known breeding pond, creek restoration, and enhancement of the upland habitat are you still in concurrence with a "not likely to adversely affect" finding?

If you have any questions please contact Chris States at (510) 286-7185 or me at (510) 286-5681.

Sincerely,

Chuck Morton
District Branch Chief
Caltrans, District 4

DEPARTMENT OF TRANSPORTATION

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February 24, 2004
04 Son 116
04-283800

Mr. Gary Stern
NOAA Fisheries
777 Sonoma Ave, Suite 325
Santa Rosa, CA 95404

Attention: Ms. Maura E. Moody

Dear Ms. Moody,

Caltrans is in the planning and design stages of safety project on State Highway 116 in Sonoma County. This stretch of the highway is commonly called Stagegulch Road and parallels and crosses Champlin Creek numerous times. Champlin Creek is a tributary of Sonoma Creek and is, in its lower reaches, known to be a steelhead creek.

Caltrans plans to remove the abandoned box culverts and a section of roadway and restore the natural meander to the creek. As a component to the riparian restoration, we intend to enhance the terrestrial habitat. At another location, Caltrans is proposing to install a low flow culvert which would allow any salmonid to progress to upper reaches of the creek. Currently this location is a fish passage barrier during most of the year.

The Caltrans environmental and design staff are taking every possible opportunity to implement avoidance and minimization measures to avoid impact to any salmonids and their habitat.

Caltrans is of the opinion that, with these avoidance and compensation measures, that this project may be eligible for a not likely to adversely affect determination from NOAA Fisheries. Please contact us at your earliest convenience to discuss the project.

If you have any questions please contact Chris States at (510) 286-7185 or me at (510) 286-5681.

Thank you for your attention to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Chuck Morton".

Chuck Morton
District Branch Chief
Caltrans, District 4

DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
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July 2, 2003

Debbie Pilas-Treadway
State Of California
Native American Heritage Commission
915 Capitol Avenue, Room 364
Sacramento, CA 95814

SUBJECT: Sacred Lands File Search for Three California Department of Transportation (CALTRANS) Projects in Sonoma and Napa Counties.

Dear Ms. Pilas-Treadway:

Caltrans proposes three projects, which will involve ground-disturbing activity. As part of State and Federal regulation, we are initiating Native American consultation and request a list of Native American contacts and a search of the Sacred Lands File for the following three project areas:

1. Caltrans proposes to construct shoulders and realign Stage Gulch Road (Route 116) from the intersection at Adobe Road (KP 67.2) to the Arnold Drive Route 116 intersection at KP 71.8 in the Cities of Petaluma and Sonoma, Sonoma County, California (EA 283800, KP 67.2-71.8/PM 41.8-44.7). The project area is located on the Petaluma River, Sears Point and Sonoma USGS Quad maps. Specifically, it is located:
 - a) within the southwest quadrant of the Sonoma Quad, in an unincorporated portion of Township 5 North (T 5 N) and Range 6 West (R 6 W)
 - b) within the northwest quadrant of the Sears Point Quad, in an unincorporated portion of Township 5 North (T 5 N) and Range 6 West (R 6 W), and
 - c) within the northeast quadrant of the Petaluma River Quad, in an unincorporated portion of Township 5 North (T 5 N) and Range 6 West (R 6 W).
2. Caltrans proposes to widen and realign State Route 121 between Dahig Road and the Napa and Sonoma County Line, in the Cities of Napa and Novato, (EA 444200 KP 0.58-3.88/PM 0.3-2.0). This project is plotted on the Napa USGS Quad map. Specifically, it is located within the southwest quadrant of an unincorporated portion, of Township 5 North (T 5 N) and Ranges 4 West (R 4 W) and 5 West (R 5 W).

3. Caltrans proposes to install horizontal drainage pipes along State Route 128 (EA 250000, KP32.19-33.2/PM 20.0-20.5) near the Capell Creek Bridge, in Napa County California. The project area is plotted on the Capell Valley USGS Quad map. Specifically, it is located within the northwest quadrant of Section 6 of Township 7 North (T 7 N) and Range 3 West (R 3 W).

A copy of the USGS Quad, which contains each of these project areas, has been attached for your convenience.

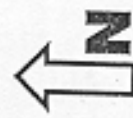
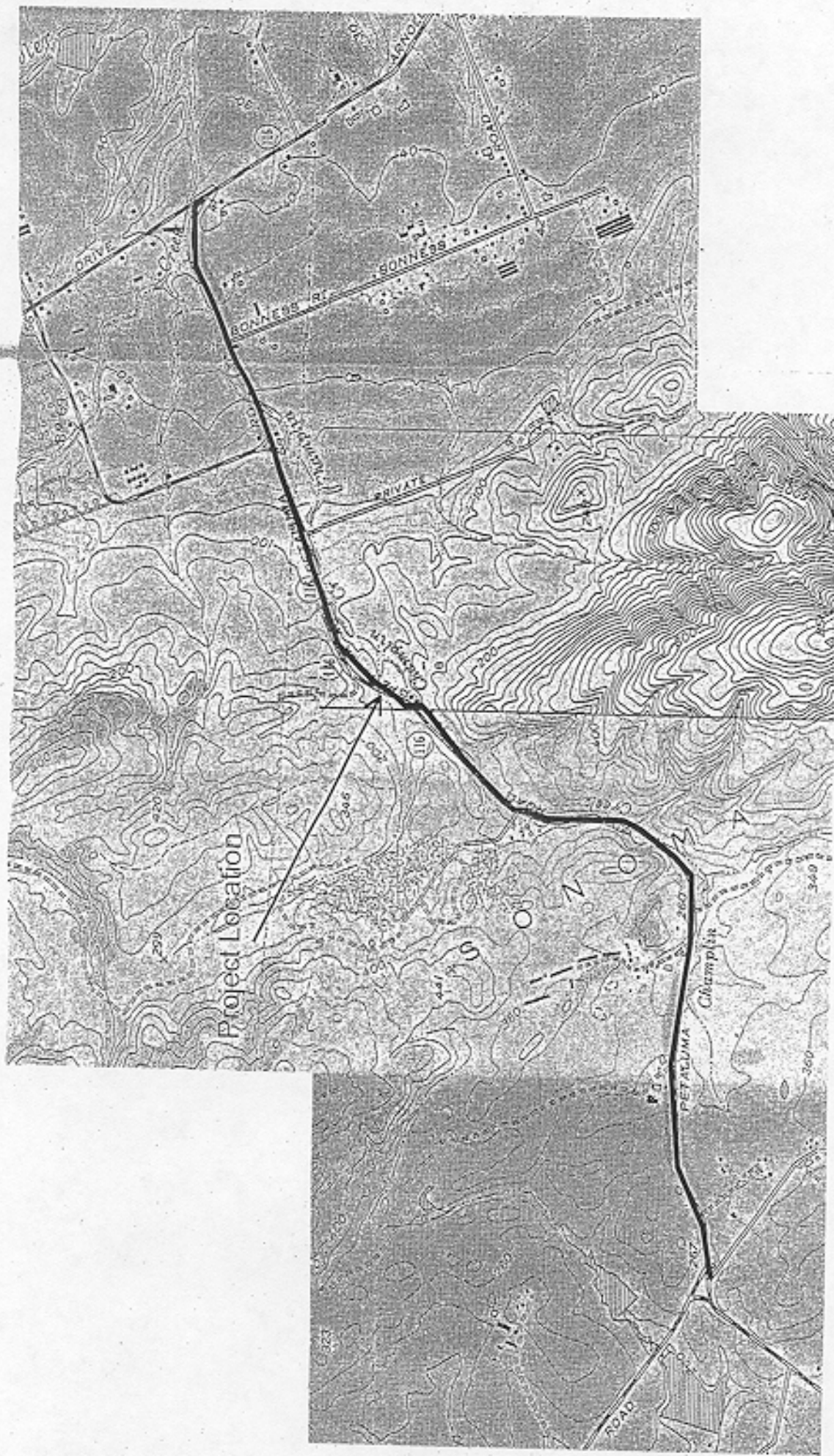
If you have any questions pertaining to this matter, I am available by email at Lissa_McKee@dot.ca.gov or by phone at (510) 622-5458.

Sincerely,



ELIZABETH MCKEE

District Native American Coordinator
Caltrans District 04



Project Location Map Stage Gulch Road Realignment

California Department of Transportation
District 4
EA 2838004
KP 67.2-71.8/PM 41.8-44.7

STATE OF CALIFORNIA

Gray Davis GOVERNOR

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 354
SACRAMENTO, CA 95814
(916) 653-4038
Fax (916) 657-5390
Web Site www.nahc.ca.gov



July 11, 2003

Elizabeth McKee
District Native American Coordinator
Department of Transportation
P.O. Box 23560
Oakland, CA 94623-0660

Sent by Fax: 510-286-6374
No of Pages: 4

RE: Proposed install horizontal drainage pipes along SR 126, Napa County. Widening and realignment of SR 121, Napa County. Construct shoulders and realign Stage Gulch Road project, Sonoma County.

EA 283800


Dear Ms. McKee:

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend other with specific knowledge. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 653-4038.

Sincerely,


Debbie Pilas-Treadway
Environmental Specialist III

NATIVE AMERICAN CONTACTS
Sonoma County
July 11, 2003

Grant Smith
4309 Chico Ave
Santa Rosa, CA 95401
(707) 528-2584

Coast Miwok
Pomo

The Federated Indians of Graton Rancheria
Tim Campbell, Cultural Resources Officer
320 Tesooni Circle, Suite G Coast Miwok
Santa Rosa, CA 95401
(707) 566-2288
(707) 566-2291 - fax
coastmiwok@aol.com - email

Kathleen Smith
1778 Sunnyvale Avenue
Walnut Creek, CA 94596
(925) 938-6323

Pomo
Coast Miwok

Dawn S. Getchell
P.O. Box 53
Jenner, CA 95450
(707) 865-2248

Coast Miwok
Pomo

The Federated Indians of Graton Rancheria
Gene Buyelot
1025 Susan Way
Novato, CA 94947
(415) 883-9215 Home
coastmiwok@aol.com - email

Coast Miwok

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7060.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5067.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regards to the cultural assessment for the proposed construct shoulders and realign Stage Coach Road project, Sonoma County.

CHAPTER 4 LIST OF PREPARERS

4 Chapter 4 LIST OF PREPARERS

The following staff at Caltrans District 4 prepared this Initial Study:

Office of Environmental Analysis

Seana L. S. Gause
Valerie Heusinkveld

Office of Natural Sciences

Christopher States
Chuck Morton
Michael Galloway

Office of Water Quality

David Yam
Chris Paddick

Office of Cultural Resources

Philippe Lapin
Alicia Langford

Office of Environmental Engineering

Chris Wilson
Andre Nguyen

Office of Environmental Program Project Management

Philip Badal
Jeff Hall

Office of Landscape Architecture

Bryan Walker
Steve Middleton
Marty Hogan

Office of Design

Jason Mac
Bo Yuan
Jason Phoen

Office of Traffic Safety

Lore Ahmadi
Phillipe Van

Office of Hydraulics

Charlotte Cashin

Office of Geotechnical Design – West

Anna Sojourner

CHAPTER 5 DISTRIBUTION AND MAILING LIST

Federal Agencies

National Marine Fisheries Service
Bay Area Office
777 Sonoma Avenue, Room 325
Santa Rosa, CA 94502

U.S. Army Corps of Engineers
Regulatory Branch
San Francisco District
Attention: CESP-N-CO-R
333 Market Street, 8th Floor
San Francisco, CA 94105

U.S. Department of Agriculture
Natural Resources Conservation
Service
430 G Street, #4164
Davis, CA 95616

U.S. Fish and Wildlife Service
U.S. Department of Interior
2800 Cottage Way, Room W-2605
Sacramento, CA 95825

State Agencies

Executive Director
Office of Planning and Research
State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814

California Department of Conservation
801 K Street, MS 24-01
Sacramento, CA 95814

California Department of Fish and
Game
Fisheries, Wildlife, and Environmental
Programs
P.O. Box 47
Yountville, CA 94599

California Department of Fish and
Game
Habitat Conservation Planning Branch
1416 9th Street, Suite 1341
Sacramento, CA 94296

Office of Historic Preservation
P.O. Box 942896
Sacramento, CA 94296

California Department of Parks and
Recreation
Resources Management Division
P.O. Box 942896
Sacramento, CA 94296

California Department of Water
Resources
Reclamation Board
1416 Ninth Street, Room 1601
Sacramento, CA 95814

California Department of Water
Resources
Environmental Services Office
3251 S Street, Room 111
Sacramento, CA 95816

California Highway Patrol
Office of Special Projects
2555 1st Avenue
Sacramento, CA 95818

California Department of General
Services
Environmental Services Section
1325 J Street, Suite 1910
Sacramento, CA 95814

California Air Resources Board
Transportation Projects
1102 Q Street
Sacramento, CA 95812

Integrated Waste Management Board
P.O. Box 4025
Sacramento, CA 95812

California State Water Resources
Control Board
Division of Water Quality
P.O. Box 100
Sacramento, CA 95812

California Department of Toxic
Substances Control
700 Heinz Avenue, Suite 200
Berkeley, CA 94710

California Energy Commission
1516 Ninth Street, MS-29
Sacramento, CA 95814

Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814

Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

California State Lands Commission
100 Howe Avenue, Suite 100 South
Sacramento, CA 95825

Regional

Executive Officer, Susan A Warner
Regional Water Quality Control Board
North Coast Region
5550 Skylane Blvd
Santa Rosa, CA 95403

Executive Director, Eugene Leong
Association of Bay Area Governments
101 8th Street
Oakland, CA 94604

Executive Director, Steve Heminger
Metropolitan Transportation
Commission
101 8th Street
Oakland, CA 94604

Bay Area Air Quality Management
District
939 Ellis Street
San Francisco, CA 94109
Attn: Laura Thompson

Sierra Club – Sonoma Group
P.O. Box 466
Santa Rosa, CA 95402-0466

Local

Executive Director
Rick Skladzien
Petaluma Public Works Dept.
555 North McDowell Blvd.
Petaluma, CA 94954

Community Development
City of Petaluma
11 English Street
Petaluma, CA 94952

Public Works Administrator, Alan
Bandur
Sonoma Public Works Department
#1 the Plaza
Sonoma, CA 95476

David Goodison, City Planner
Sonoma Planning Department
#1 the Plaza
Sonoma, CA 95476

Executive Director, Suzanne Wilford
Sonoma County Transportation
Authority
520 Mendocino Avenue, #240
Santa Rosa, CA 95401

County Administrator, Michael
Chrystal
Sonoma County
575 Administration Drive, Room 100A
Santa Rosa, CA 95403

Sonoma County Bicycle Coalition
P.O. Box 3088
Santa Rosa, CA 95402
Attn: Christine Culver

Golden Gate Bridge Highway and
Transportation District
General Manager, Celia M.
Kupersmith
1011 Anderson Drive
San Rafael, Ca 94901

Superintendent, Dianne Zimmerman
Old Adobe School District
845 Crinella Avenue
Petaluma, CA 94954

Honorable Patricia Wiggins
California Assembly, 1st District
50 D Street, #301
Santa Rosa, CA 95404

Superintendent
Sonoma Valley School District
17850 Railroad Avenue
Sonoma, CA 95476

Honorable Joseph Nation
California Assembly, 6th District
3501 Civic Center Drive, Rm 412
San Rafael, CA 94903

Empire Waste Management
3400 Standish Avenue
Santa Rosa, CA 95407

Honorable Patty Berg
California Assembly, 7th District
50 D Street, # 450
Santa Rosa, CA 95404

Federal Elected Officials

Honorable Barbara Boxer
United States Senator
1700 Montgomery Street, #240
San Francisco, CA 94111

Honorable Diane Feinstein
United States Senator
1700 Montgomery Street, #305
San Francisco, CA 94111

Honorable Mike Thompson
Representative in Congress, 1st
District
1040 Main Street, #101
Napa, CA 94559

Honorable Lynn Woolsey
Representative in Congress, 6th
District
1101 College Avenue, #200
Santa Rosa, CA 95404

State Elected Officials

Honorable Wes Chesbro
California Senator, 2nd District
50 D Street, #102A
Santa Rosa, CA 95404

Honorable John Burton
California Senator, 3rd District
3501 Civic Center, Room 425
San Rafael, CA 94903

Local Elected Officials

Mayor, Michael Glass
City of Petaluma
11 English Street
Petaluma, CA 94952

Mayor, Joe Costello
City of Sonoma
#1 the Plaza
Sonoma, CA 95476

City Council
City of Petaluma
11 English Street
Petaluma, CA 94952

City Council
City of Sonoma
#1 the Plaza
Sonoma, CA 95476

Board of Supervisors
Sonoma County
575 Administration Drive, Room 100A
Santa Rosa, CA 95403

CHAPTER 6 REFERENCES CITED

CHAPTER 6 REFERENCES

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1972 Soil Survey of Sonoma County, California, USDA SCS in cooperation with the University of California Agricultural Experiment Station, 188 pages.
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1982 *Geologic Map of the Santa Rosa Quadrangle*. California Division of Mines and Geology.
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APPENDIX

APPENDIX



END	CONSTRUCTION
STA 58+00	KP 71.9
	PM 44.7

PM
RD WATMAUGH

End Work	
Std	59+00

ARNOLD DRIVE



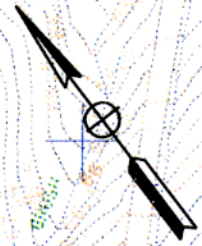
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL	SHEET TOTAL
			PROJECT	NO SHEETS

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE _____

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Caltrans now has a web site. To get to the web site, go to: <https://www.dot.ca.gov>



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